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SECURITY COUNCIL COMMITTEE ESTABLISHED BY RESOLUTION 421 (1977)
CONCERNING THE QUESTION OF SOUTH AFRICA

PROVISIONAL SUMMARY RECORD OF THE 15th MEETING

Held at Headquarters, New York,
on Thursday, 5 July 1979, at 3 p.m.

Chairman: Mr. BISHARA (Kuwait)

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The meeting was called to order at 3.50 p.m.

ADOPTION OF THE AGENDA

The agenda was adopted.

NUCLEAR COLLABORATION WITH SOUTH AFRICA - HEARING OF PROFESSOR WALTERS

Professor WALTERS (Expert)* said that the international community had progressively come to the understanding that one of the most serious and dangerous aspects of the oppressive apartheid system practised in South Africa by the white minority was the development of a nuclear-power capability which would enable it to develop nuclear weapons. That understanding had been marked by several international conferences in recent years, such as the World Conference for Action against Apartheid, held at Lagos, Nigeria, in August 1977, the International NGO Conference for Action against Apartheid held at Geneva in August 1978 and the recent Special Seminar on Nuclear Collaboration with South Africa held in London in February 1979. Those meetings, all sponsored in part by the Special Committee against Apartheid and the Centre against Apartheid, had pointed to South Africa's growing nuclear capability as an aspect of the ominous mobilization of its military strength. It had therefore been a logical step for the Security Council when, in November 1977, it had imposed a mandatory arms embargo on South Africa as a result of its brutal repression of the leadership representing the black majority in that country, to prohibit, in paragraph 4 of resolution 418 (1977), any co-operation with South Africa in the production of nuclear weapons.

It was important to note that in sharply bringing that problem to world attention, the Security Council Committee established by resolution 418 (1977) concerning the question of South Africa was underscoring the fact that

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* This statement has been reproduced in extenso in the summary record in accordance with the decision taken by the Committee at the meeting.

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South Africa's possession of a nuclear-weapons capability constituted a direct threat to the lives of all peoples of southern Africa and the African continent and to the peace and security of the world community.

In that light the seminar held in London in February 1979, in its report of 7 March 1979 to the Special Committee against Apartheid, had proclaimed the urgency of mounting vigorous action against all nuclear collaboration with South Africa, as part of measures aimed at combating the scourge of apartheid. A brief review of its findings concerning South African nuclear capability would put that matter into greater perspective.

South African nuclear capability

The main facility which underpinned South African nuclear activities was the National Nuclear Research Centre at Pelindaba, which conducted a wide range of research and development related to nuclear applications in various fields, and which was also basically concerned with testing vital components for the expanded nuclear power programme. It contained the various plants which made up the existing collection of nuclear facilities, except for the power station under construction at Duynefontein.

1. Nuclear reactors. There were two research reactors: one was SAFARI 1 (South African fundamental atomic reactor installation), a 20-megawatt unit which utilized highly enriched (above 90 per cent U-235) uranium and had been in operation since 1965; the other, Pelindaba-Zero, was of smaller capacity and utilized 2-per-cent enriched uranium; it had gone critical in 1967. The first reactor had been provided by the United States, constructed by the Allis-Chalmers Corp. under subcontract from the Roberts Construction Co. of Washington, D.C., and the other had been manufactured in South Africa.

2. Pilot uranium hexafluoride plant. The processing of natural uranium into uranium hexafluoride was a necessary step in the creation of enriched uranium in an enrichment plant.

3. Pilot uranium enrichment plant. South Africa had developed its own application of the jet-nozzle technique perfected by a German scientist, Mr. Erwin W. Becker, at the nuclear research centre of the Federal Republic of Germany at Karlsruhe, for the enrichment of uranium. It had announced plans to

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convert that pilot plant into a commercial-scale plant which would produce enriched uranium for local consumption and for sale to international buyers. The exact scale of the converted plant had not yet been made public; nevertheless, highly enriched uranium was one element used in the fabrication of nuclear weapons.

4. Nuclear power station. Construction had begun on a 2,000-megawatt power station, at Koeberg in Duynefontein on the Western Cape, that was projected to be completed by 1984. That $2 billion project consisted of two 1,000-megawatt nuclear power reactors being built by a French consortium (FRAMATOME) and, according to the South African Government, being developed for the production of electricity. However, the abundant coal and hydroelectric resources of South Africa would appear to make nuclear-power-generated electricity less than an urgent priority.

5. Uranium resources. South Africa was third in world reserves of uranium and fifth in world production, including its control of Namibian uranium resources through the new Rossing mine. In 1977, for example, South Africa had produced 3.5 million kg of raw uranium at a profit of R 69.78 million. Except for the Rossing site (a 5,000-tonnes-per-year facility), which constituted about half of South African holdings, uranium was produced as a by-product of gold mining by firms in South Africa, and the favourable price of gold on the world market was enhanced by a favourable uranium market. Uranium prices - and therefore South Africa's uranium sales - were influenced by its membership in a powerful international uranium cartel which had affected international trade in that commodity. Between 1972 and 1976 the price of world uranium had increased from $4 to $40 per pound.

6. Delivery vehicles. Should South Africa possess or plan to possess nuclear weapons, it had available delivery systems in the form of aircraft or short-range missiles and rockets which could already cover substantial portions of southern Africa.

There had been general agreement at the London seminar that South Africa probably had a few nuclear devices of whatever construction (from crude to moderately sophisticated), which it was already in a position to test, and that the most likely route of such proliferation would be the production of such explosive devices from plutonium. Plutonium, a by-product of nuclear-reactor utilization of uranium, could have come from SAFARI 1, and it should be noted that recent experiments in the United States indicated that nuclear explosions could be

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produced from relatively low-grade plutonium. Moreover, previous studies had suggested that effective explosives could be made from any grade of plutonium incorporated into a simple device. It had also been estimated that the plutonium output of the Koeberg power station under construction would be in the 400 to 600-kg range, which would yield about one Nagasaki-type weapon every week in a dedicated nuclear weapons development programme.

Normally, reprocessing of spent fuel from a reactor would be necessary to extract high-grade plutonium, but it should be noted that the National Nuclear Research Centre had a very sophisticated Chemistry Division, capable of having performed chemical reprocessing of spent fuel by some of the publicly available techniques, although it was reported that most such fuel had been returned to the United States for reprocessing.

Such estimates by various experts and other observers that South Africa had developed or would soon develop nuclear weapons or explosive devices would amount to mere speculation, were it not for the following facts:

1. In August 1977, the major nuclear nations had reported that South Africa had constructed a nuclear explosion test facility in the Kalahari desert and

2. Documents presented to the London seminar by the African National Congress of South Africa had contained cartographic information that the South African Government was undertaking planning which involved knowledge of (a) areas inside South Africa amenable to nuclear explosions and (b) areas of black population density.

Attention should, however, be focused on the fact that those indications of nuclear maturity, based on an ambitious programme of development by South Africa, would not have been possible without extensive collaboration, both secret and open, between South Africa and many developed nations in the West. The deliberations at the London seminar had illustrated the substantial role played by the United States, France, the Federal Republic of Germany, the United Kingdom and Israel in the development of military and nuclear-weapons capability by the provision of special nuclear materials, nuclear facilities and equipment, related scientific training and economic assistance directed towards those objectives. While much of that collaboration had been conducted in the name of "peaceful" development of

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nuclear power, the London seminar had firmly rejected any meaningful distinction between the availability of nuclear-power facilities for either civilian or military utilization, bearing in mind the possibility of rapid development of such weapons, given the perceived opportunity to do so.

Furthermore, the point had not been lost on the seminar that the credibility of those countries which had attempted to negotiate a just solution to the independence of Namibia from the cruel grip of South Africa was made suspect by the existence of licences for uranium prospecting and contracts for the supply of uranium in the hands of firms of those very nations. That, it had been felt, was a profound violation of Decree No. 1 for the Protection of the Natural Resources of Namibia. The evidence of such collaboration might explain why inordinate attention had been given to the nuclear plans of such countries as Brazil, Pakistan and South Korea, while in relative terms, disapproval of the rapid nuclear build-up in South Africa had been muted.

Utilization of nuclear weapons

Given the conclusion by major elements of the international community that South Africa had both the motivation and the capability to develop nuclear weapons, it appeared that the South African Government was making serious preparations to add a nuclear dimension to its military defence plans. Without a full review of the possible uses of such weapons, the following might be suggested as the major role for nuclear weapons in South Africa:

1. The threat of development. As matters stood, the mere idea that South Africa might already have developed nuclear weapons had political utility in the bargaining process with nuclear-weapon States and had to be taken into account by the liberation movements and their supporters.

2. Use in tactical situations. There was wide agreement that any serious military challenge to South Africa from outside would take the form of guerrilla warfare. In line with its "forward defence" military strategy, tactical nuclear weapons of certain varieties might be contemplated against such operations in critical situations. They might also be used against troop concentrations in neighbouring countries.

3. Use in regional situations. Extraordinary threats posed to South Africa by significant troop formations either in the southern African region or in the continent at large could provoke a nuclear response.

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4. The "trip-wire" strategy. Such a threat might also lead South Africa to employ nuclear weapons in an effort to bring into play the nuclear defence capabilities of the major nuclear-weapon States, particularly if the threat came from other States with major conventional or nuclear capabilities.

Remedies

For many of the reasons suggested, the remedies should be tailored to retard and halt the progress of South Africa towards the development of functional nuclear capability. Accordingly, nuclear co-operation of any kind between South Africa and any other State should be prohibited. In that connexion, a brief discussion of the remedies proposed or adopted as solutions to the problem under discussion was in order.

1. Expulsion from international bodies. It was well known that South Africa, which had previously played a leading role as a member of the Board of Governors of the International Atomic Energy Agency, had been expelled in 1977 following protests by African members. That important step had seriously damaged the credibility of South Africa as a legitimate representative of Africa in the pursuit of peaceful nuclear power development, given the South African political situation. South Africa had, however, been invited to join the International Nuclear Fuel Cycle Evaluation (INFCE) and had accepted, attending the initial meeting of the working group involved with uranium enrichment, and a high-ranking member of the South African Atomic Energy Board had been invited to join the International Commission on Radiological Protection.

2. New non-proliferation initiatives. The Administration of President Carter had recently taken steps to prevent the proliferation of nuclear weapons, by adopting a negative attitude towards the breeder reactor and promulgating the Nuclear Non-Proliferation Act of 1978. The Act, while setting out new review procedures for the export of nuclear materials, required recipient countries to have acceded to full-scope safeguards covering all their nuclear facilities or to the Treaty on the Non-Proliferation of Nuclear Weapons. The Act had also established the INFCE that he had mentioned earlier.

The immediate effect on South Africa of the new legislation had been that the United States had continued to suspend 26 kg shipments of highly enriched uranium fuel for SAFARI 1 to South Africa and that the United States Government had begun negotiations with the South African Government with a view to getting it to comply

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with the new export criteria, which could lead to an amendment to the existing agreement for nuclear co-operation between the two countries.

However, the United Nations seminar on nuclear collaboration with South Africa had concluded that the safeguards contained in the IAEA charter and the Treaty on the Non-Proliferation of Nuclear Weapons were not sufficient to prevent either the further development of South African nuclear power installations or the clandestine development of nuclear weapons. Moreover, participants at the seminar had expressed grave concern over the possibility that, in exchange for security guarantees by the United States, South Africa might agree to ratify the Treaty on the Non-Proliferation of Nuclear Weapons, so that its nuclear programme could continue to receive substantial assistance from the United States and other Western nations, thereby fulfilling its planned objectives in any case.

Those initiatives by the United States, while constructive in intent, would therefore not help to retard South African nuclear development and were considered of only modest effect in that regard.

3. Security Council resolution 418 (1977). In December 1977, Mr. Abdul Minty of the British Anti-Apartheid Movement had stated before the Special Committee against Apartheid (A/AC.115/L.485 of 22 December 1977):

> "The wording of Security Council resolution 418 leaves it to each Member State to interpret the meaning of what constitutes 'arms and related material' and calls merely for the 'review' of existing contractual and licensing arrangements with South Africa rather than forbidding them. It further decides that States 'shall refrain from any co-operation with South Africa in the manufacture and development of nuclear weapons' rather than forbidding all forms of nuclear collaboration with the Pretoria régime."

At the seminar on nuclear collaboration with South Africa, there had also been strong consensus that, while paragraph 4 of the resolution constituted a recognition of the problem, it did not satisfactorily remedy it for the following reasons:

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1. No nuclear-weapon State had ever admitted that its nuclear relations with a specific nation (outside the perimeter of its defence alliances) would amount to the development of nuclear weapons in that non-nuclear-weapon State: and therefore

2. No country could be expected to admit that it was assisting another country in manufacturing nuclear weapons: rather, nuclear-weapon States would insist that their nuclear relations with non-nuclear-weapon States such as South Africa were designed to promote peaceful uses of nuclear power for civilian purposes:

3. South Africa could maintain its existing nuclear relations with other countries on that basis and still develop a clandestine, dedicated programme of nuclear weapons.

It appeared obvious that, at the very least, a programme to monitor nuclear relations between South Africa and other States should be established, with the aim of determining objectively whether or not such trade and assistance had the result described (and prohibited) in paragraph 4 of resolution 418 (1977). Secondly, and most importantly, such a determination based on paragraph 4 as it stood would be most complex unless the types of materials and assistance likely to result in the further development of the ability of South Africa to fabricate nuclear weapons were specified. The problem as it applied to the development of nuclear weapons was analogous to the "grey area" problem relating to conventional armaments, which had from the outset plagued enforcement of the arms embargo against South Africa.

In that regard, the Security Council Committee established by resolution 421 (1977) concerning the question of South Africa might consider specifying additional prohibitions which logically flowed from paragraph 4 of the resolution, in the language contained in existing agreements for nuclear co-operation between States such as the United States and South Africa. Such prohibitions might refer to trade in or the provision of:

1. Special nuclear materials;
2. Source materials;
3. By-product materials;

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4. Production or utilization facilities;

5. Restricted data;

6. Training for scientific personnel from South Africa in nuclear energy applications.

In order to bring about effective implementation of paragraph 4 of resolution 418 (1977), the Security Council Committee must reach the same conclusion of the seminar on nuclear collaboration with South Africa, to wit, that in order to prohibit collaboration between South Africa and other States in the fabrication of nuclear weapons, because of the versatility of nuclear power, all relations defined as "peaceful" or "civilian" must be prohibited as well. In fact, the report of the seminar was emphatic on that point:

> It is essential, therefore, that urgent action be taken to ensure, within the context of an international policy of comprehensive sanctions against South Africa, that there is no further nuclear collaboration in any form with South Africa, or financial or other assistance to its nuclear programme. The international community will have to adopt firm measures to prevent South Africa from continuing its present nuclear programme."

In order to put such firm measures into effect, the seminar had recommended the following action by the Security Council:

> The Seminar recommends that the Security Council consider the matter urgently and adopt a mandatory decision, under Chapter VII of the Charter, to end all nuclear collaboration with South Africa, to require the dismantling of its nuclear plants and warn the Pretoria régime that any efforts by it to continue its nuclear programme or to build a uranium enrichment plant would result in further international action, including effective collective sanctions."

4. Economic sanctions. Lastly, it should be recognized that, to the extent that South Africa had had access to the rich resources of multinational firms in that country and to considerable financial assistance from Western institutions, it had been able to finance its military and nuclear build-up. For example, outstanding loans from the United States alone, constituting one third of total exposure, at $2.2 billion, were concentrated in the strategic and industrial sectors of the

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South African economy, and French financial institutions had made available the extensive credit required for the construction of the Koeberg nuclear power station.

In many countries, non-governmental organizations fighting apartheid had engaged in disinvestment campaigns which, although they had not been decisive, could help to put an end to the assistance provided by multinational corporations to the racist and oppressive régime. The additional legitimacy of a programme of mandatory economic sanctions sponsored by the United Nations against South Africa, however imperfectly observed, could be of immeasurable benefit to those movements which, alone, had shown that they represented the most serious prospect of bringing about a retrenchment in South African nuclear plans. It had been suggested that the estimated current cost of the Koeberg power station was $2 to 2.3 billion, representing a considerable increase over the original cost of $1.2 billion, apparently with no additional services provided. There was no doubt that the large credit exposure of South Africa on the international money markets, the high inflation levels, the high rates of unemployment, the high energy costs (not fully compensated for by the rising price of gold), and other factors of a political nature made South Africa vulnerable to a modest level of concentrated economic withdrawal.

Conclusion. There was considerable danger that, as the white minority in South Africa succumbed to the inexorable logic of confrontation with the internal and external forces challenging that country's illegal and unjust hegemony over the lives of the black majorities in South Africa and Namibia, that minority would unleash a process of regional or global nuclear warfare in an ultimate and desperate effort to retain its privileges. Although some analysts suggested that South Africa would utilize its nuclear capability in a more rational and responsible manner - at least in the short run - the international community would, nevertheless, be taking an unacceptable risk in failing to take firm steps to counter the growing nuclear build-up in that country. The risk stood out in bold relief against the background of the mass murders perpetrated by the régime at Sharpeville and Soweto, the killing of Steve Biko and many others, and all the massacres which took place in secret. The stakes, therefore, were considerable,

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and the strong assertion of the London Seminar, to which attention should once again be drawn, was that nothing less should be achieved than a comprehensive programme for a mandatory arms embargo which placed all aspects of the South African nuclear build-up squarely within the framework of arms control and considered all remedies from that vantage point.

Replying to a question from the Chairman, he said that it was, in effect, the extensive aid provided by the developed countries to South Africa that had enabled the latter to train scientists, obtain nuclear material and, consequently, acquire a nuclear capability. Moreover, South Africa had benefited to a large extent from the competition in which certain Western countries such as France and the Federal Republic of Germany had engaged in order to obtain contracts in the field of nuclear power.

Mr. ADEYEMI (Nigeria) requested that Professor Walters' statement should be recorded in extenso. Since there was no clear distinction between nuclear technology intended for peaceful uses and that intended for military purposes, he asked Professor Walters whether he thought that the only way of preventing South Africa from taking advantage of the aid it received from Western countries in order to produce nuclear weapons would be to require that the contracts it concluded with those countries should be submitted to the Committee for consideration.

Professor WALTERS thought that there should indeed be some machinery to enable the Committee to control nuclear licences and contracts, as States would never openly admit that they were violating operative paragraph 4 of Security Council resolution 418 (1977).

The CHAIRMAN suggested that Professor Walters' statement should be reproduced in extenso in the summary record.

It was so decided.

Mr. EL JEAAN (Kuwait) asked if it was possible to distinguish between nuclear technology intended for peaceful uses and that intended for military purposes and if, in the opinion of Professor Walters, South Africa possessed the requisite technical know-how to produce and launch its own nuclear devices.

Professor WALTERS said that there was general agreement among experts that there was no clear-cut distinction between nuclear technology intended for peaceful uses and that intended for military purposes, since the two types of technology were more or less the same. It was currently thought that South Africa might have succeeded in producing some rudimentary nuclear devices by using either the enriched uranium supplied by the United States or the plutonium derived from the use of uranium in the nuclear reactors which the country already possessed. For the time being, South Africa was still dependent on the developed countries for the development of its potential but, since it possessed both the technical know-how and the necessary raw materials, it was estimated that the country would be self-sufficient in that field by 1984, at which time it would be capable of producing one atomic bomb a week.

Mr. MILLER (United States of America) wished to recall that, as Professor Walters had mentioned in his statement, the United States had discontinued nuclear collaboration with South Africa some years ago.

The CHAIRMAN suggested that the Committee should meet again to consider the points raised by Professor Walters.

It was so decided.

The meeting rose at 4.45 p.m.